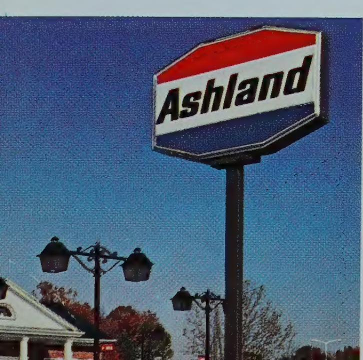
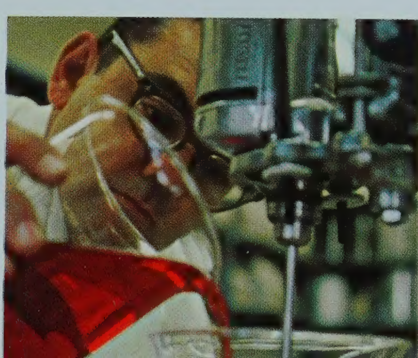
file

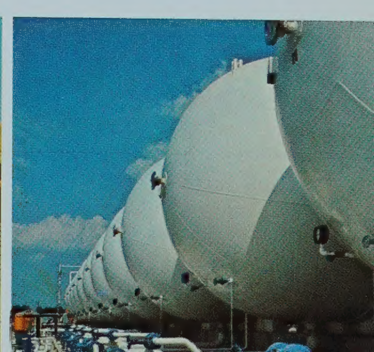
Ashland

1968 Annual Report

THE INDUSTRIAL RESOURCES COMPANY







Ashland Oil & Refining Company

THE INDUSTRIAL RESOURCES COMPANY

Annual Report for the Year Ended September 30, 1968

CONTENTS

The legend THE INDUSTRIAL RESOURCES COMPANY embossed on the cover of this Annual Report repeats a new corporate theme conceived and introduced during 1968, expressing the significance of the expanding and diversifying operations of your Company.

COVER ILLUSTRATIONS left to right:
This modern, Colonial-style Ashland branded station, opened during 1968, is typical of those gaining wide acceptance in the marketplace.

Dr. Robert Leitheiser, principal developer of water-extended polyester resins (WEP), conducts an experiment in the Ashland Chemical Research Center at Minneapolis, Minnesota.

A crew preparing to make a seismic depth charge on Tract 123 of the Circle Oil concession in Libya.

Storage tanks at the Wanda Petroleum Company's Breaux Bridge, Louisiana, fractionating facility.

Four Years in Brief

Year Ended September 30	1968	1967	1966	1965
As Originally Reported to Shareholders				
Net sales and operating revenues	$1,068,442,861	$804,892,498	$699,308,039	$447,743,776
Cash flow—net income plus depreciation, etc.	$ 96,612,496	$ 82,295,568	$ 77,161,050	$ 57,515,478
Net income	$ 48,340,156**	$ 44,541,674	$ 42,924,420	$ 31,594,004
Income per common share	$2.29**	$2.36	$2.40	$2.01
Adjusted for Poolings of Interests*				
Net sales and operating revenues	$1,068,442,861	$953,428,053	$853,607,531	$709,167,862
Cash flow—net income plus depreciation, etc.	$ 96,612,496	$ 90,073,992	$ 85,333,411	$ 71,293,261
Net income	$ 48,340,156**	$ 48,384,337	$ 48,089,182	$ 38,116,913
Income per common share	$2.29**	$2.41	$2.48	$2.05
Cash dividends paid per common share	$1.20	$1.15	95¢	77½¢
Shares of common stock outstanding:				
At end of period	20,522,809	19,314,390	18,684,681	17,965,664
Average number during period	20,207,972	19,117,174	18,426,501	17,600,164
Capital additions	$ 84,887,496	$ 74,036,345	$ 60,762,321	$ 45,010,287
Net worth at end of year	$ 351,323,833	$311,794,338	$272,238,266	$244,914,972
Refined products sold (barrels per day)	240,074	233,576	215,153	197,634
Crude oil refined (barrels per day)	211,162	206,642	183,276	166,325
Number of shareholders	52,761	53,165	52,120	50,848
Number of employees	17,000	14,500	12,200	11,100

*These figures reflect the restatement of prior years to include the sales and earnings, as well as the securities issued for other companies acquired in all of the years on a pooling of interests basis.

**Reflects extraordinary charge of $4,019,782 or 20¢ a common share for write-off of California oil and gas leases.

Letter to Stockholders

December 12, 1968

Your Company achieved new records during 1968. Among the most important were sales of $1,068,442,861, cash flow of $96,612,496, and net income of $48,340,156 after writing off an extraordinary charge against income of $4,019,782 arising from exploration offshore California.

While the results of 1968 operations were substantial, they do not reflect the full contribution of the year to the future of the Company.
Both the oil and chemical industries are dynamic and demand the continued expansion and improvement of facilities.

Capital expenditures from all sources during 1968 totaled $131.4 million, including $46.5 million for cost of facilities leased under long-term agreements. This is an increase of 15.7 percent over the record level of $113.6 million expended in 1967, including $9.3 million of leased facilities. Capital expenditures are expected to be lower this year but will continue at a high level, reflecting the many opportunities available to your Company. Projects implemented during 1968 include:

(1) The completion at a cost of $44 million of a major pipeline network for both crude oil and petroleum products connecting Company refineries with markets and major sources of crude oil, both domestic and foreign. This network assures the continued availability of crude oil supply moving through a low-cost transportation system.

(2) An expansion of refining capacities was initiated which will result in a total of approximately 260,000 barrels a day by the middle of 1969. This expansion in refining capacity is supported by comparable growth in terminal and marketing facilities.

(3) All of the Company's varied chemical operations were consolidated into one division known as Ashland Chemical Company, and a number of new chemical and petrochemical projects were implemented, expanding facilities in several lines.

(4) The International Crude Oil Exploration Department, organized in 1968, secured a 50 percent interest in Circle Oil Co. which holds petroleum concessions on three million acres in Libya. Work on these concessions is continuing. In addition, participation was secured in a sixty thousand square mile concession in Indonesia.
Shortly after the close of fiscal 1968, a concession covering approximately one-half of the principality of Brunei—an oil producing area of north Borneo—was granted. Negotiations are proceeding for concessions in other overseas oil areas.

As it has been over the past decade—during which sales moved from approximately $300 million a year to the present level—your Company's basic policy continues to maintain a balance between internal growth and acquisitions. Acquisitions served to both complement and diversify Ashland's principal operations while giving additional equity base needed to support a relatively high level of capital expenditures. During 1968 your Company acquired 14 companies with sales exceeding $197 million and representing an investment of more than $86 million.

Important acquisitions made during the year included Wanda Petroleum Company, New Haven Trap Rock Company, and F. H. Ross & Company. Wanda Petroleum is engaged in the gathering, transporting, and fractionating of natural gas liquids. Wanda and its facilities are being rapidly expanded and represent a source of petrochemical feedstocks, both for potential Ashland plants and for other petrochemical companies located along the Texas and Louisiana Gulf Coast. New Haven Trap Rock, which was purchased subject to a $9 million reserved production payment, has more than 200 years of reserves of high quality stone for a variety of construction requirements and serves the populous New York and southern New England markets. F. H. Ross, with 18 outlets for the distribution of chemicals, is a major factor in the rapidly expanding chemical markets of the southeastern United States. Both Wanda and F. H. Ross purchase a substantial quantity of products from other companies for resale.

Sales figures for the year from all operations include approximately $275 million of products purchased and resold. Historically, Ashland has chosen this method of entry into new markets. Resale products are selected when they complement or fit our manufacturing capability, enabling backward integration into manufacturing when appropriate. The sale of more products than your Company can actually produce allows for maximum utilization of sales efforts, but has a tendency to reduce the ratio of net profit to sales until manufacturing facilities are constructed.

Shortly after the close of the fiscal year, the Board of Directors decided to ask the shareholders for approval to increase the shares of authorized common stock from 30 million shares to 60 million shares. Taking into consideration the conversion of all convertible securities, the exercise of options, and shares in connection with pending and completed acquisitions, less than 4.7 million shares are available for future use. While there are no present plans for the use of the increased shares, it is considered desirable to have them available for use when appropriate situations arise.

In November 1968, the Board of Directors approved an offer by your Company to the shareholders of United Nuclear Corporation—owner of extensive reserves of nuclear ore, producer of nuclear fuels and fabricator of nuclear cores. The proposed offer consists of a package of Ashland securities including common stock and warrants to buy Ashland common stock, for each share of United Nuclear common stock with an approximate market value of $43.25. The Management also negotiated an option to acquire approximately 978,000 shares of United Nuclear common stock from Combustion Engineering, Inc. The option is exercisable between Jan. 1 and Jan. 31, 1969, is subject to certain conditions, and covers about 21% of UNC's common stock.

To support the anticipated higher level of operations most major departments of the Company have been reorganized. In connection with these changes, three new administrative vice presidents were elected during the year; they are John R. Hall, Robert T. McCowan, and William R. Seaton. Joining the Board of Directors during the year were John R. Hall, Thomas C. Morrow and Robert S. Reigeluth.

The continued support of our employees and stockholders and the confidence of our customers is highly gratifying.

By order of the Board of Directors.

Rexford S. Blazer

Chairman of the Board

Orin E. Atkins

President

Financial Report

In the preliminary report to stockholders for the fiscal year ended September 30, 1968, the Company reported a tentative net income of $52,400,000, equal to $2.49 a share. Subsequently, earnings have been reduced by $4,019,782, equal to 20¢ a share to reflect the extraordinary charge-off of the cost of Federal oil and gas leases covering tracts 375 and 384 in the Santa Barbara Channel offshore California.

As a result of writing off the offshore leases, net income for the fiscal year ended September 30, 1968 was $48,340,156, equal to $2.29 a share of common stock on the average of 20,207,972 shares outstanding. This compares with reported earnings last year of $44,541,674, equal to $2.36 a share on the average of 17,917,313 shares outstanding. Restating last year's income in poolings of interests to reflect the companies acquired during 1968 results in an adjusted income of $48,384,337, or $2.41 a share on a restated average of 19,117,174 shares outstanding.

Per share earnings were adversely affected by the imposition of the Federal income surtax to the extent of slightly more than $2,485,000, equal to 12¢ per share.

Sales and operating revenues for the year were a record $1,068,442,861, an increase of 32.7 percent over reported 1967 sales of $804,892,498. On a restated basis, sales for 1967 were $953,428,053. Conventional refined petroleum products in 1968 accounted for 46 percent of Company sales, chemicals, petrochemicals and feedstocks 32 percent, and other businesses 22 percent.

Cash flow from operations totaled $96.6 million in 1968, compared with a total cash flow in 1967 of $84 million. On a pooling of interests basis, the 1967 total was $90 million. In addition to the reported cash flow, $12.5 million was generated by properties whose revenues are applied to various oil and gas production payments.

Capital expenditures from all sources reached a record level of $131.4 million, a sum that includes $46.5 million for the cost of facilities leased to the Company under long-term agreements. Total capital expenditures were up 15.5 percent from $113.6 million in 1967, a figure that included $9.3 million of leased facilities. Capital expenditures from all sources for crude oil production totaled $19.3 million in 1968; for refining, marketing, and transportation $72.7 million; for chemicals and petrochemicals $20.1 million; and for other businesses $19.3 million.

To assist expanding foreign operations, and in anticipation of the restrictions of movement of funds from the United States, the Company completed the sale of $20 million of convertible debentures in Europe early in January. These debentures were sold for Eurodollars, bear interest at 5 percent, and are convertible after August 1, 1969 at $40 a share into 500,000 shares of Ashland common stock.

Your Company also refinanced existing indebtedness by the sale during the year of $60 million in 4¾ percent convertible subordinated debentures. These debentures are convertible into 1.2 million shares of Ashland common stock at $50 a share. The proceeds were used to retire indebtedness incurred in 1967 in connection with the acquisition of the chemical division of the Archer Daniels Midland Company, notes owed by the Wanda Petroleum Company at the time of its acquisition, and to repay a portion of the revolving and term notes previously incurred by Ashland under terms of bank loan agreements with three banks. These bank loan agreements, which permit borrowings up to $75 million, remain in full force and effect.

At year end, working capital was $221,893,912, including $49,404,184 in cash. Long-term debt of $231,022,235, was equal to 38.5 percent of total capitalization.

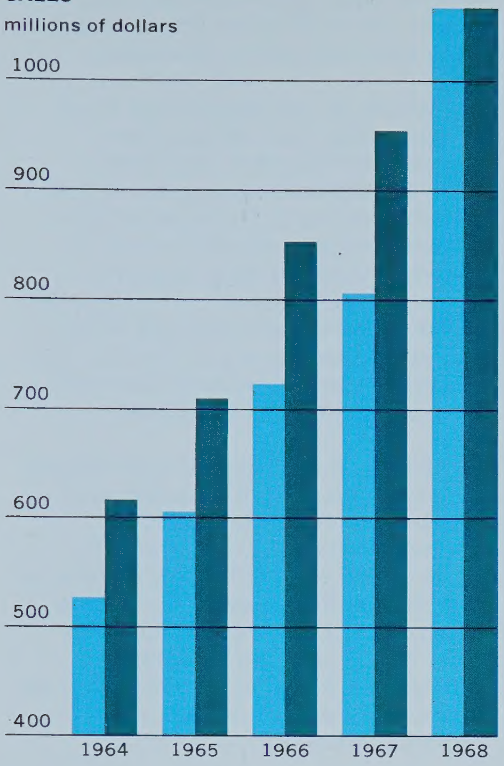
Net earnings, after taxes, were equal to 14.58 percent of average capital stock and surplus compared with 16.57 percent last year and an average of 13.84 percent over Ashland's 45 years of operation.

Capital Additions

Total 5-Year Period		1968	1967	1966	1965	1964
$ 73,304,116	Oil and Gas Production	$19,347,365	$10,515,553	$13,237,552	$13,866,253	$16,337,393
67,731,113	Manufacturing	23,964,933	24,228,017*	6,663,182	7,753,341	5,121,640
65,102,723	Marketing	16,394,530	16,786,637	15,218,118	8,570,950	8,132,488
39,874,188	Transportation	11,397,719	9,172,311	8,489,354	5,945,355	4,869,449
49,272,334	Road Building	11,509,325	10,938,450	14,247,421	6,479,168	6,097,970
10,943,743	Other	2,273,624	2,395,377	2,906,694	2,395,220	972,828
$306,228,217		$84,887,496	$74,036,345	$60,762,321	$45,010,287	$41,531,768

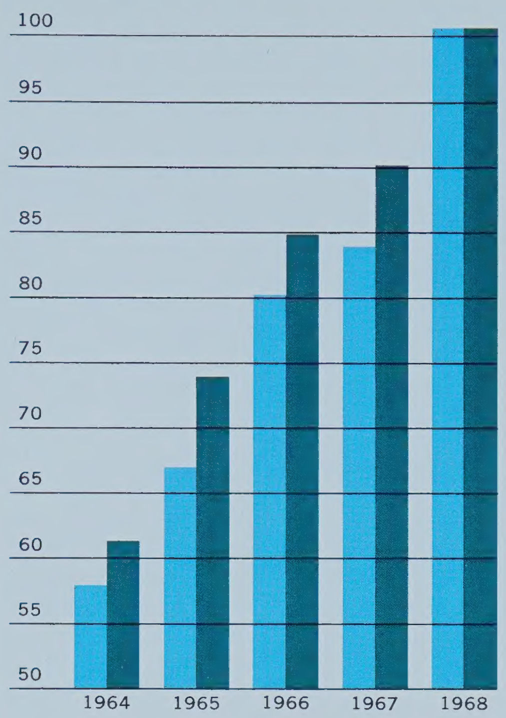
*Excluding $29 million for properties acquired from another company.

SALES
millions of dollars



	Reported	Restated
1964	$527.6	$615.5
1965	604.8	709.2
1966	723.2	853.6
1967	804.9	953.4
1968	1,068.4	1,068.4

CASH FLOW
millions of dollars



	Reported	Restated
1964	$58.0	$61.3
1965	67.0	73.9
1966	80.2	84.9
1967	84.0	90.1
1968	100.6	100.6

As Originally Reported

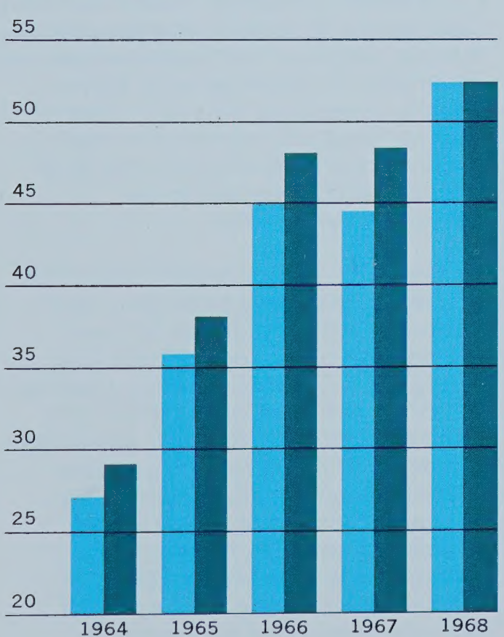
Adjusted for Pooling of Interests

Under modern accounting practices, acquisitions of companies may be treated for financial reporting as a pooling of interests.

This method of accounting requires restatement of profits for prior years. The charts on this page show the results of your Company's operations for the past five years as originally reported to the shareholders, and as restated on a pooling of interests basis.

In many respects the most significant comparison is in the changes of the "as originally reported" figures. These reflect the positions of the stockholder over the years without the confusions that poolings bring to actual earnings of the past.

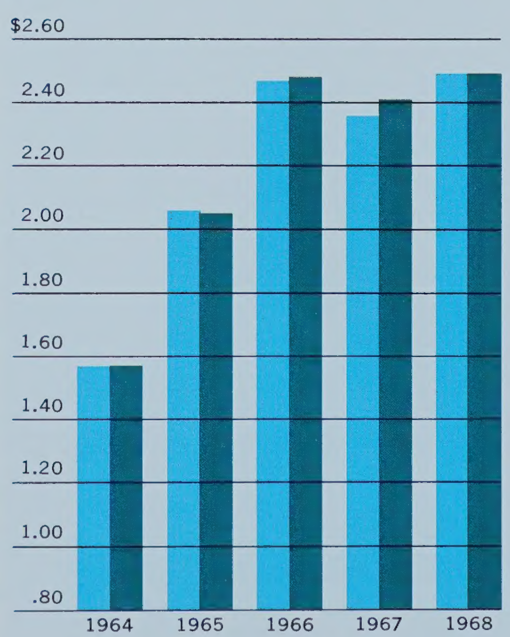
NET INCOME
millions of dollars



	Reported	Restated
1964	$27.2	$29.1
1965	35.8	38.1
1966	45.0	48.1
1967	44.5	48.4
1968	52.4	52.4

Excluding extraordinary charge of $4 million in 1968.

EARNINGS PER SHARE COMMON STOCK



	Reported	Restated
1964	$1.57	$1.57
1965	2.06	2.05
1966	2.47	2.48
1967	2.36	2.41
1968	2.49	2.49

Excluding extraordinary charge of 20¢ a share in 1968.

Exploration and Production

WESTERN HEMISPHERE

The Company's crude oil production in the Western Hemisphere during 1968 showed a decline from an average 24,909 barrels a day during 1967, to 20,507 barrels during 1968.

The decline was mainly due to reduced production in the Morrow County, Ohio field, and in secondary waterflooding projects in the eastern U. S., and had been anticipated. Steps were instituted to overcome the challenge this posed. The Exploration and Production Department was reorganized, and an International Division created.

Economies were introduced into the Department's domestic operations, and energetic efforts launched to obtain additional producing properties. These included participation with other companies in bidding for offshore Federal properties in the Santa Barbara Channel in California, and for offshore Federal tracts in Texas, in the Galveston area.

In the Santa Barbara Channel, where Tracts 375 and 384 covering 11,520 acres had been obtained by Ashland and other companies, five wells were drilled on Tract 375 and one well on 384. All were unproductive, although shows of oil and gas were encountered. Further exploratory work is planned, with two shallow wells programmed for 375, and one deep well for 384.

In offshore Texas, after extensive seismic work with other companies, Ashland was a member of a group that successfully bid for and obtained two tracts covering 2,880 acres. Ownership of a third tract for which the group bid is under dispute. A Federal Court directed the U. S. Department of the Interior to award the tract to the Ashland group, but the decision is subject to pending appeal. In the two tracts awarded, seismic work continues, and plans include drilling a first well in the Southeast Block in December, 1968. The Company's investment in its approximately 10 percent interest in the two tracts is $700,000.

Additional acreage was acquired in the Cooke Inlet of Alaska, the Anadarko Basin of Oklahoma, the Powder River Basin in Wyoming and other areas. By 1968 fiscal year's end, the Company held leases of 1.5 million acres in the U.S., of which 900,000 acres are undeveloped.

During the year, the Company participated in the drilling of 129 wells in the U. S. and Canada of which 90, or 69.8 percent, were producers. The Company's net interest in these producing wells was 23 wells.

Production dedicated to liquidation of production payments in connection with the United Carbon purchase in 1963, amounted to 3,200 barrels of crude oil daily and 175 million cubic feet of natural gas a day during 1968. At fiscal year's end, a total of $53.1 million had been applied to the production payment with the unpaid principal amounting to $44.4 million. These payments remain on schedule and are projected to conclude in 1973, at which time the share of production presently being applied to the production payments will belong to the Company.

In Canada, Exploration and Production efforts were sharply increased. Early in fiscal 1968, Ashland acquired a 21 percent stock interest in Scenic Oils, Ltd., which holds a controlling interest in Canadian Gridoil, Ltd., an independent producing company that has substantial properties in Western Canada.

The drilling in the Zama-Deneb area of Northwest Alberta resulted in six Keg River oil wells. The Company owns a 50 percent interest in five of these wells and a one-third interest in the sixth. In the Cherhill "A" Pool, where Ashland owns a 25 percent interest, six Mississippian Banff oil wells and one shut-in gas well were drilled. This area includes the Glenevis Prospect, where a discovery well was drilled during 1967.

Ashland holds approximately 1.2 million gross acres and 550,000 net acres and reservations in Canada.

In addition to this accelerated crude oil exploration and development program, Ashland has launched a minerals exploration program in both Canada and the U. S. These activities include company-owned acreage in the Little Missouri River area of Wyoming. Molybdenum, zinc, copper, nickel and other minerals are also of interest. Several areas in the U.S. and Canada are being explored and their mineral possibilities evaluated.

In the U.S., these mineral explorations have resulted in both patented and unpatented bentonite claims in Northwest Wyoming. Other efforts, indicative of Ashland's growing interest in areas beyond oil and gas, include an agreement, entered into early in 1968, to join with the International Minerals Corporation in exploration for sulphur on three concessions in Veracruz, Mexico.

In Venezuela, where the Company has a 10.8 percent interest in two 25,000 acre concessions, efforts to develop a means of recovering additional reserves of heavy crude oil continues to be vigorous. A natural gas liquids extraction plant—Lamaliquido 1—is scheduled to go onstream in mid-summer, 1969.

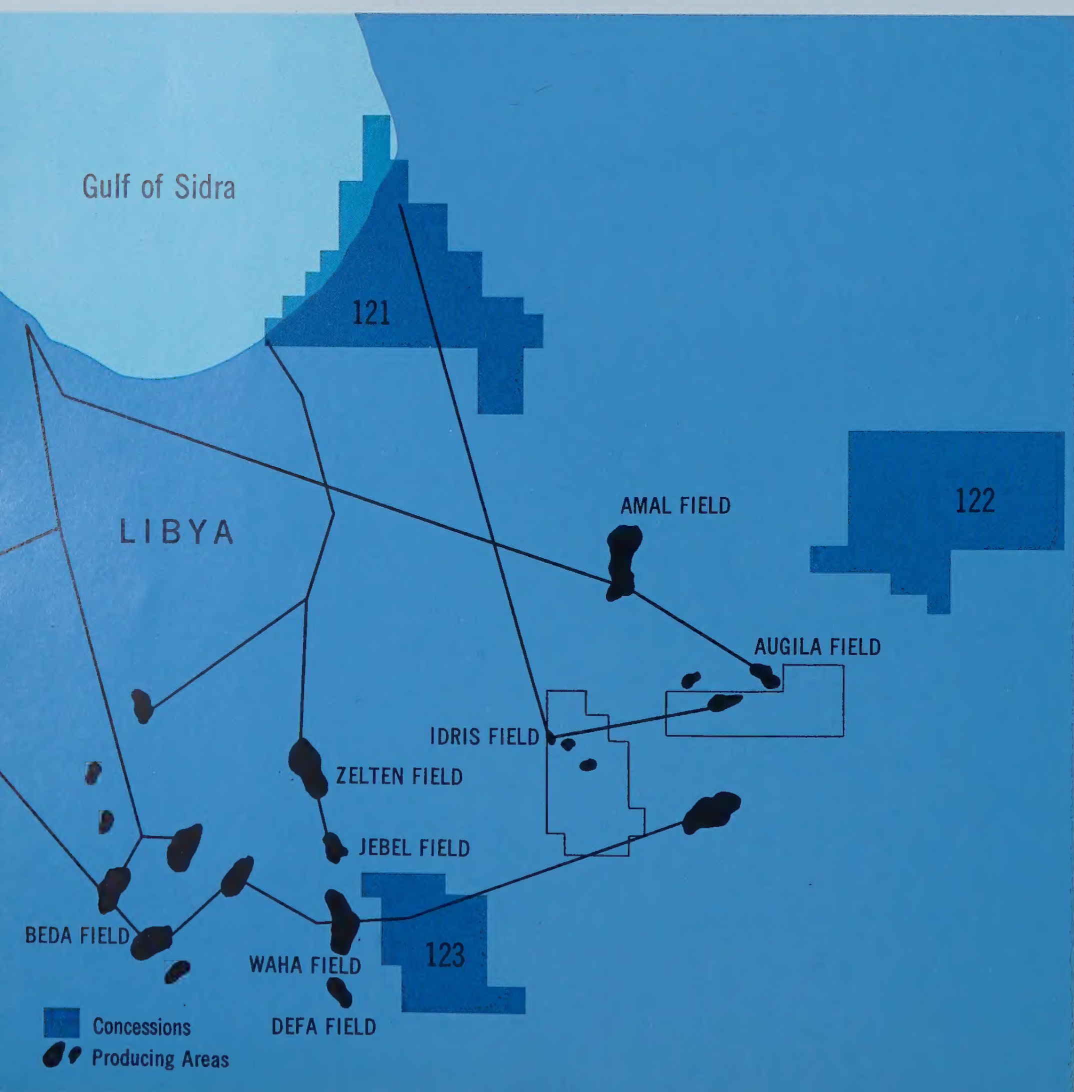
INTERNATIONAL

During the past year, Ashland obtained a 50 percent ownership of the Circle Oil Co. S.A. Circle is the owner of three petroleum concessions that encompass 3 million acres in Libya. Seismic crews have shot 300 miles of lines on Tract 121, where a four-well exploratory drilling program has been planned and is expected to be completed during 1969.

On Tract 122, approximately 240 miles of seismic lines have been shot, and additional work is planned. At least one well will be drilled on Tract 122 during 1969. Seismic shooting totalling 512 miles has been run on Tract 123, and a stratographic test well was drilled to a depth of 8,000 feet, to evaluate seismic and gravity information. The test confirmed the accuracy of the seismic information, but no hydrocarbons were encountered. Further work is being done on Tract 123 before selecting the next well location.

Site of stratographic test well on Tract 123, Circle Oil concession in Libya. A water well rig and supporting facilities are visible in the background.

Cherhill oil well in Glenevis Field area of North Central Alberta, Canada, where Ashland Oil has an interest in 15 oil wells whose gross average production is 1,500 barrels a day. Estimated reserves in the area amount to more than 10 million barrels of medium and low-gravity crude oil.



In Indonesia, where the Company has an undivided one-third interest in a 60,000 square mile offshore concession, 2,800 miles of marine seismic work has been completed, with an additional 6,000 to 7,000 miles remaining to be done. It is hoped this work can be evaluated sufficiently to permit the drilling of at least one well during fiscal 1969.

Shortly after the close of fiscal 1968, it was learned the Government of Brunei, a British Protectorate located on the northern portion of the Island of Borneo, had granted Ashland a concession covering 1,139 square miles of both inshore and offshore area. The concession is the largest ever granted an oil company by the Brunei Government and encompasses half of the country. Brunei has a history of oil production dating from 1924.

The Kuwait Neutral Zone operations of the American Independent Oil Company, in which Ashland holds a 14.13 percent stock interest, have been at a reduced rate, curtailed since the closing of the Suez Canal, and dividends from Aminoil have been suspended. Last year Ashland's share of these dividends amounted to $1,060,000. Aminoil is currently putting onstream a $20 million desulphurization plant that will greatly improve the marketability of the relatively low-gravity, high-sulphur production of the Neutral Zone. In addition the South Um Gudair Field was developed with 17 wells having been completed by September 30. Production from this field adds significantly to Aminoil's producing capacity.

Aminoil holds a one-third interest in a 3.2 million acre concession in Abu Dhabi, where extensive seismic work has been completed, and a first exploratory well is being drilled. Aminoil also holds a 22 percent interest in two concessions in Ecuador, totalling 2 million acres. Seismic work is now underway on this concession.

Upper Map
Ashland Oil was granted a 1,139 square-mile concession in the State of Brunei shortly after the close of the 1968 fiscal year. Brunei, a British Protectorate located in the northwest of the Island of Borneo, has a history of oil production dating back to 1924. In Indonesia Ashland Oil has a one-third interest in a 60,000 square-mile offshore concession. Marine seismic work is now underway and preliminary drilling expected to start in 1969.

Lower Map
The Circle Oil concession in Libya consists of three Tracts comprising 3 million acres.

Refining, Transportation and Marketing

REFINING

Refinery operations continued to be the largest single contributor to Company income. Crude oil processed at the Company's six refineries during fiscal 1968 averaged 211,000 barrels a day—an all-time high. A $50 million expansion program instituted in late 1967 is well underway and will increase refining capacity to 260,000 barrels a day early in 1969. New facilities completed in 1968 as a part of this program include the conversion of two Udex units to the sulfolane process, a 30 million gallon per year cyclohexane unit, a 15 million gallon per year hydrogenation unit to produce petroleum solvents capable of meeting anti-pollution criteria, new LPG recovery facilities at Buffalo and a carbon monoxide boiler.

In fiscal 1969 the Company expects to complete a 300 million pound per year cumene unit. Expansions of crude oil fractionating facilities at the Company's Buffalo, Catlettsburg and Canton refineries will be completed in 1969. Also under construction and scheduled for completion in 1969 is a saturate gas plant at the Catlettsburg refinery. Final plans are being made for the initiation of construction of a coke unit at the Catlettsburg refinery, that will produce more than 150,000 tons of low-sulphur petroleum coke a year.

By using a molecular sieve cracking catalyst and certain process modifications, the Company has been able to expand the capacity of these plants markedly. Crude distillation capacity is also being added to supply the raw materials needed for these catalytic cracking units. The crude expansions represent, primarily, bottleneck removals through the installations of additional furnaces, pumps and heat exchangers without replacing entire units. Through this method, the Company is increasing its refining capacity at a significantly lower cost.

As this increased capacity is placed in operation, additional economies in unit costs of operations should be achieved.

TRANSPORTATION

The Company's crude oil transportation facilities were greatly improved during the year by the completion of Capline—a joint-interest 40-inch crude oil line extending from the Gulf Coast to Patoka, Illinois (near St. Louis), and the Ashland leased 20-inch crude oil line that connects with Capline at Patoka and extends to Ashland's terminal on the Ohio River at Owensboro, Kentucky. Ashland Oil is the largest single participant in Capline with an 18.7 percent interest.

In addition, the Company entered into a long-term lease covering a crude oil pipeline that runs from Patoka to Lima, Ohio, and has acquired a series of crude oil pipelines that are being expanded and that extend from Lima to the Company refinery at Canton, Ohio.

These pipeline acquisitions and expansions materially strengthen the Company's position in terms of crude oil supply and transportation. While the crude oil moving through these lines has always been available, the oil has been transported in the past through pipelines owned by other companies. The oil will now move through Company-owned or leased facilities at costs that are both lower and more stable. Total investment in these pipeline facilities exceeds $44 million. In addition to improving the Company's position regarding domestic crude oils, the lines will also make foreign crude oil available to its refineries through Capline.

View of the Buffalo refinery, showing some of the new additions. On the left is part of the new gas concentration plant, and on the right the new sulfolane units.

The new cumene installation at Catlettsburg, Kentucky. Visible in the foreground are cyclohexane reactors.

Capline, world's largest crude oil pipeline, was completed during 1968. Ashland Oil, with 18.7 percent interest, is the largest single participant in this venture.

Refining, Transportation and Marketing, continued

A portion of the crude oil pipeline system between Lima and Canton, Ohio, is being converted to refined products service. When completed, the enlarged section will be able to transport additional volumes of petroleum products from Canton to markets in the Columbus and Lima, Ohio and Huntington, Indiana areas.

Another important addition to Ashland's pipeline transportation network is Wanda Petroleum's interest in natural gas liquids pipelines located in the Texas-Louisiana Gulf Coast. These lines, which at fiscal year's end transported more than 35,000 barrels a day of natural gas liquids, are an important segment of the expanding natural gas liquids industry. Wanda's pipelines are being further expanded by the addition of important gathering systems and a new 10-inch trunk line extending 200 miles—from the 50,000 barrel a day fractionation complex at Breaux Bridge, Louisiana—to the chemical and petrochemical plants of the Houston, Texas area.

The marked increase in traffic of petrochemical and chemical cargos on the Ohio and Mississippi Rivers more than offsets the decline in the Company's river operations resulting from the substitution of Capline for the tows that formerly brought crude oil from Louisiana. This shift in balance was successfully met by the acquisition of another towing company during 1968, adding 7 towboats and 43 barges to the Company's facilities that are particularly well-suited to carry petrochemicals and chemicals.

MARKETING

Petroleum products sales during 1968 reached a record volume of 3.69 billion gallons, equal to 240,000 barrels a day. Gasoline sales efforts were particularly effective, averaging 120,000 barrels a day, with totals for the fiscal year exceeding 1.8 billion gallons. Sales through the Company's own service stations contributed importantly to the gain in gasoline volumes. The 44 newly constructed colonial and contemporary design Ashland stations opened during the year received gratifying customer acceptance. Most such stations are located near the Company refineries, where delivery costs can be maintained at low levels.

Sales of gasoline to independent distributors who resell under their own brand names increased during the year. These customers, most of whom operate modern, attractive stations, offer full facilities for customer service and continue to constitute important outlets for the Company's products.

Assisted by energetic sales promotions and advertising campaigns, Valvoline sales, both foreign and domestic, continued their climb; these motor oils and lubricants have shown an increase in both sales and volume every year for the past five years.

Asphalt also had a successful year in 1968, with sales volume improving by seven per cent. Much of this gain was attributable to sales to the roofing, paving and specialty products industries. The new Federal Highway Act, which provides for increased highway expenditures, promises continued increases.

Allied Oil, the Company's fuel oil specialists, completed a successful year in 1968 despite erratic developments in the steel industry, caused by the threat of a nationwide strike. Sales of fuel oil for heating use to commercial and industrial users increased—a trend being nurtured to lessen the dependence of Allied upon the steel industry.

Sales of diesel fuel, lubricants and specialty petroleum products to the railroad industry were the highest in the Company's history. The extensive reorganization of the railroads now in progress is expected to provide further opportunities for Ashland to expand its position as an important supplier to this vital transportation sector.

Ashland branded stations are familiar throughout Kentucky, Ohio, West Virginia, Western New York and neighboring states.

New Valvoline packaging plant in Santa Fe Springs, California.

Ashland and Valvoline sponsored two cars at the famous Indianapolis 500 Memorial Day race. Seven more entrants elected to use Valvoline lubricants and Ashland racing fuel.

Baytown synthetic rubber and latex plant, operated by the Carbon Black & Synthetic Rubber division of Ashland Chemical Company.

Chemicals and Petrochemicals

Ashland Oil's diverse chemical and petrochemical operations were consolidated during 1968 in a series of moves climaxed by the formation of the Ashland Chemical Company division. The new organization, with more than $300 million in sales, has seven operating divisions. They are:

1. Carbon Black & Synthetic Rubber, which manufactures and markets these products both domestically and internationally.

2. Petrochemicals, responsible for the marketing of benzene, cyclohexane, toluene, xylene and other petrochemicals produced in the Company's plants and refineries.

3. Industrial Chemicals & Solvents, responsible for the marketing of products largely purchased for resale.

4. Resins & Plastics, which markets industrial and specialty resins and plasticizers.

5. Chemical Products, which markets fatty acids, antioxidants, dye intermediates and specialty chemicals.

6. Foundry Products, marketers of phenolic resin binders, sand stabilizers, bentonite and other products used by the foundry industry.

7. International, which handles joint chemical ventures overseas and also manufactures resins and plastics in eight countries.

On February 5, 1968, offices of the Ashland Chemical Company division were established in Columbus, Ohio. Administrative, marketing, manufacturing and staff service groups were moved from the former ADM Chemicals group in Minneapolis to the new headquarters; Catalin operations were moved from New York; the Bronoco staff and management group moved from St. Louis, and other organizational shifts were made. At present the Foundry Products Division continues to operate from Cleveland, Ohio and the former United Carbon group from Houston, Texas. It is planned to construct a new office building and centralized research facilities in Columbus during the next several years, and to complete the transfer of all divisions to their new headquarters during this period.

Inevitably, in such a sweeping consolidation, large though nonrecurring expenses are involved. It is clear, however, that increased profitability and better managerial coordination have resulted from the centralization.

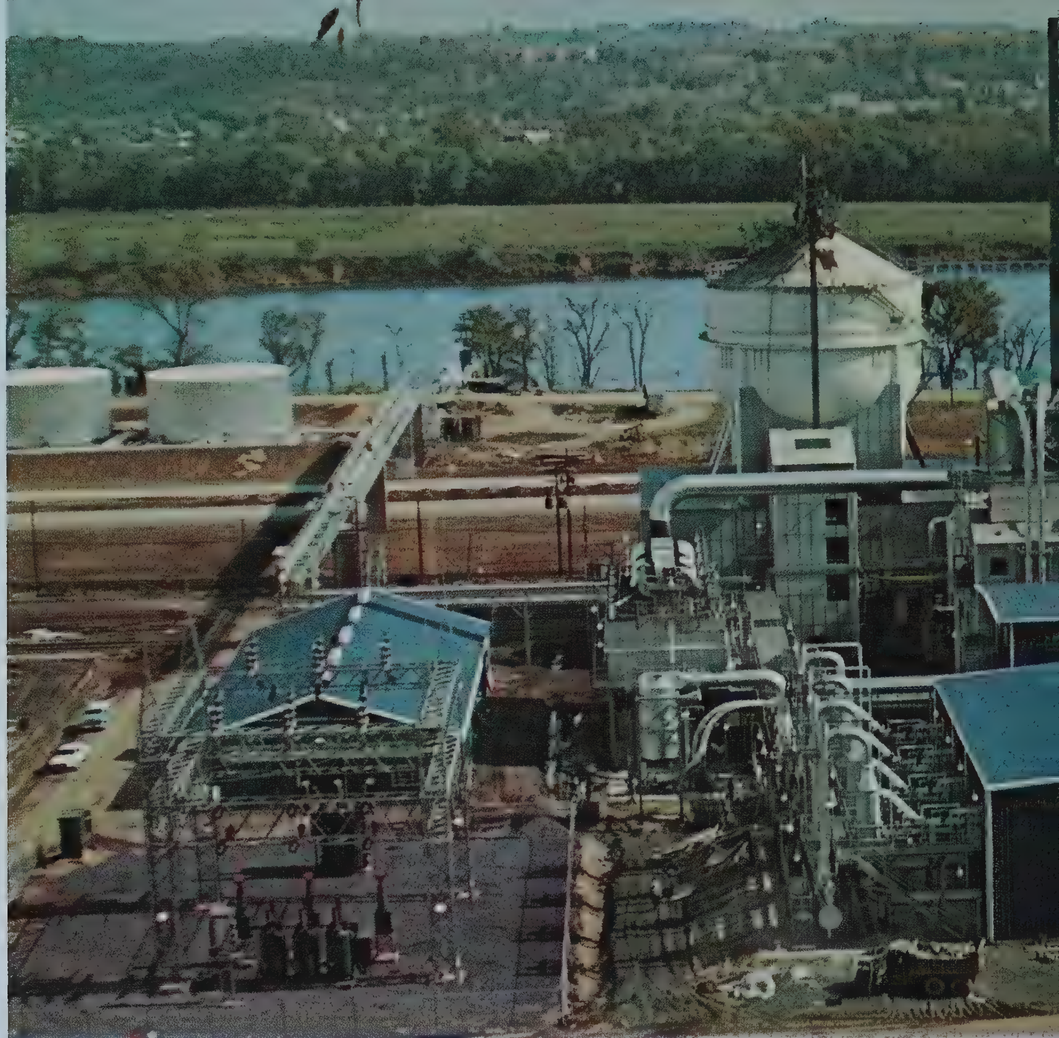
During 1968, the various divisions of Ashland Chemical did not slacken their tempo. A number of new products and product modifications were introduced. The most interesting, to the general public, is the water-extended polyester resins (WEP). These achieved commercial significance during the latter quarter of 1968; patent coverage is anticipated and an explicit licensing program has gained acceptance among customers.

A new fatty acid fractionating plant was started up in February, 1968; a new melamine plant will be constructed in Donalsonville, Louisiana as a joint venture with another company—it will cost $16 million and is planned for construction during fiscal 1969 and will be the first in the U. S. to make melamine from urea; a new bentonite mining and processing facility is planned for the Foundry Products Division; a new plant to manufacture malononitrile—a chemical basic to a non-lethal defense product—was planned as a result of an $18 million defense contract received in 1968.

Petrochemical facilities completed during the year include a 30 million gallon per year cyclohexane unit; the conversion of the two Udex units to sulfolane process for the production of benzene, toluene, xylene, and heavier aromatics; and a 15 million gallon per year hydrogenation plant to produce petroleum solvents. In addition, a 300 million pound per year cumene unit is under construction at the Company's petrochemical plant at Catlettsburg, Kentucky.

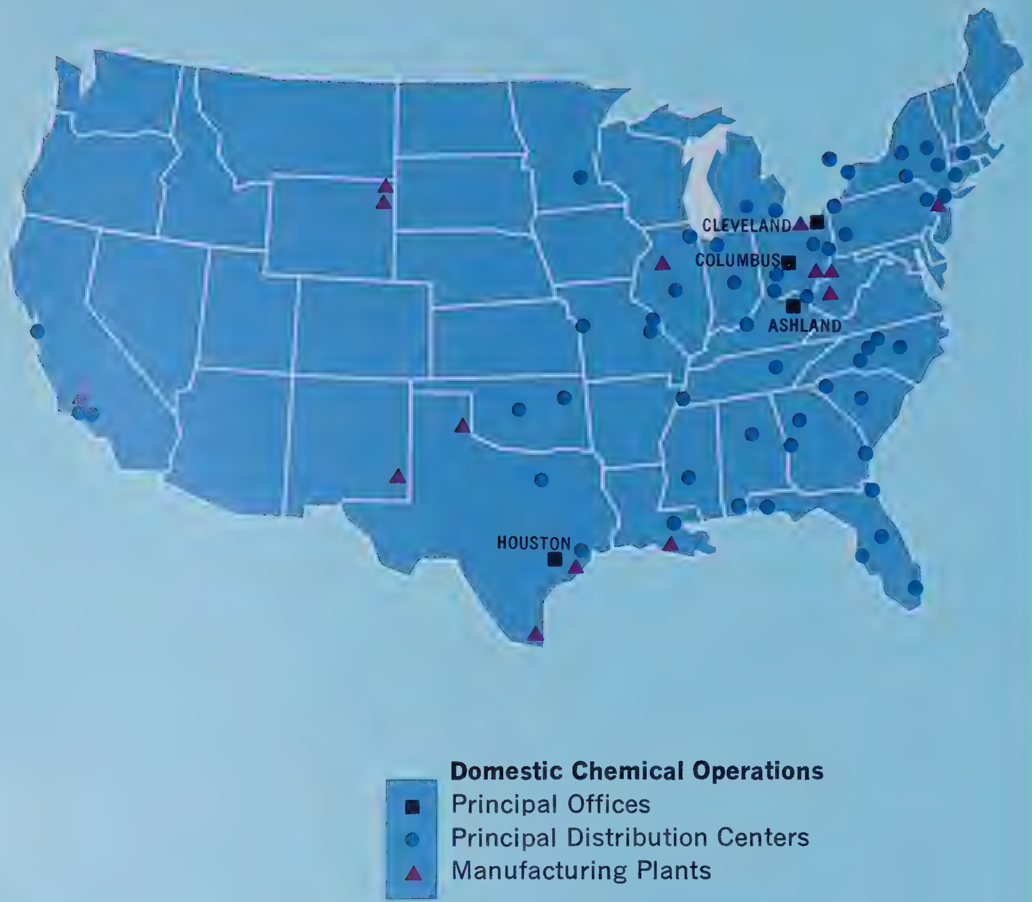
The carbon black plants operated by the Carbon Black & Synthetic Rubber Division were upgraded and improved at a cost of $2.4 million during the year. In addition a new 100 million-pound capacity carbon black plant at Belpre, Ohio was completed and started up in September, 1968. The plant is one of the first in the Ohio Valley to serve important Akron markets. Carbon black capacity was expanded in the plant in France, and expansions in carbon black facilities are planned in both Venezuela and India. A new carbon black venture, in which the Company has a one-third interest, will begin operations in Spain early in 1969.

Panoramic view of the new 100 million pound capacity carbon black plant started up in September, 1968, at Belpre, Ohio. Belpre is only three hours—150 miles—from Akron, the heart of the nation's rubber and tire manufacturing industry.



Industrial chemicals plant of the F. H. Ross & Company, located in Jackson, Mississippi. The plant is typical of the eighteen Ross installations throughout the southeast.

Aerial view of the 25,000 barrel a day fractionating plant—now being expanded—of the Wanda Petroleum Company near Breaux Bridge, Louisiana.



European Chemical Operations

In terms of industrial solvents, the Industrial Chemicals & Solvents Division is now one of the nation's most important distributors, with more than 50 distribution centers located throughout the U.S. Most of this volume represents, however, resale of solvents produced by major chemical companies, with a corresponding narrowing of unit profits in relation to sales.

Chemical sales also include petrochemicals produced in the Company's refineries and marketed by the Petrochemicals Division. In overall terms, sales from operations included in Ashland Chemical during 1968 showed an increase of $32 million—11 percent over 1967. Profits from operations included in the Ashland Chemical Division increased substantially.

Plans for the Division in the future include expansion into more profitable areas, upgrading of the feedstocks the Division can market, and the elimination of many marginal items.

Research and Development

Centralization of Research & Development and Engineering Services is an important part of the consolidation program of Ashland Chemical. Plans have been completed for a new R&D and Engineering Center at Columbus, to be completed in two years, where approximately 400 specialists and scientists will be employed. These will include scientists and technicians now employed in the Company's Research Centers at Minneapolis, Houston, and Fords, New Jersey.

Ashland scientists, working with other divisions of the chemical company, developed a line of antioxidants for use in gasoline and other petroleum products that has found good acceptance. Work with jet engine builders and the military is continuing on better-performance jet fuels. Ashland continues to be one of the larger suppliers of specialty jet fuels. Work in the area of coal research is showing encouraging results.

At the Houston Research Center, researchers made a significant contribution to tire manufacturing technology in studies using radioactive isotopes to measure interactions between polymers, carbon blacks and other compounds used in tires and mechanical rubber goods.

Other noteworthy accomplishments by Company scientific groups during the year include the development of Aropol®, WEP® resin and the Ashland Process—a cold cure for foundry cores. These developments were patented during 1968.

Other Business

The Company's Warren Brothers Division, whose bituminous paving operations are conducted in 72 major communities throughout the United States and Canada, made material contributions to the Company's sales and profits during 1968. At year's end, the backlog of contracts exceeded $90 million, up 20 percent from last year. Included among the successful projects completed by this company, which specializes in the application of high-quality asphalt roads and other surface covers, was the Seneca, New York, power reservoir, one of the largest hydraulic installations in the nation.

Warren Brothers was also awarded a paving contract for more than $13 million by the Texas Highway Department—the largest ever made by the state. During the year, Robert L. Smith was appointed president of Warren Brothers, succeeding Gilman Wallace, who retired after providing much of the direction which led to the successful growth of Warren Brothers.

New Haven Trap Rock, a leading New England producer of crushed stone and aggregates, was acquired during the year subject to a reserved production payment of $9 million. New Haven owns strategically located long-life reserves of stone and serves the heavily populated areas of New York, Long Island, and southern New England. New Haven also has a Machine Products Division that serves the aircraft industry. New Haven's operations in 1968 exceeded expectations.

The acquisition of Wanda Petroleum Company represented a new advance, marking the Company's entry into a new sector of the natural gas liquids industry. Wanda is unique because its customers consist, to a large extent, of other large refining, chemical, and petrochemical companies together with conventional markets for natural gas liquids. Wanda facilities include more than 300 miles of pipelines, some of which are jointly owned, connected to natural gasoline plants along the Texas-Louisiana Gulf Coast. This pipeline network both gathers and delivers natural gas liquids to fractionation plants, terminals, refineries, chemical, and petrochemical plants. Included in the facilities are more than 9,000,000 barrels of underground storage, a number of gas processing facilities, and an extensive trucking operation. One of the most important Wanda properties is a one-third joint interest in the Promix pipeline system which operates a 50,000 barrel a day fractionation facility at Breaux Bridge, Louisiana. This facility produces ethane, propane, isobutane, normal butane and natural gasoline.

Southern Fiber Glass Products, manufacturer of Cobia boats, added a new plant in Tampa, Florida, during the year and began manufacturing 72-foot fiber glass shrimp trawlers and 22-foot fiber glass houseboats, in addition to its pleasure craft line.

O. K. Tire & Rubber increased its sales of tires and retread rubber during the year; instituted a program to strengthen its franchise selling efforts through redesigned advertising, improved warehousing and market surveys.

Cleveland Tankers, largest liquids carriers on the U. S. Great Lakes, had an excellent year; is now constructing a self-propelled, 59,000-barrel capacity barge to better serve its customers and to maintain its leading position.

PERSONNEL
A Coordinator, Equal Opportunity Affairs, was appointed in 1968. His responsibility will be to coordinate programs in all Company facilities designed to carry out the Company's policy of providing equal employment opportunity without regard to race, creed, color, national origin, or sex. He will also guide the Company's participation in affirmative programs designed to increase employment opportunities for disadvantaged individuals in cooperative efforts with other leading companies.

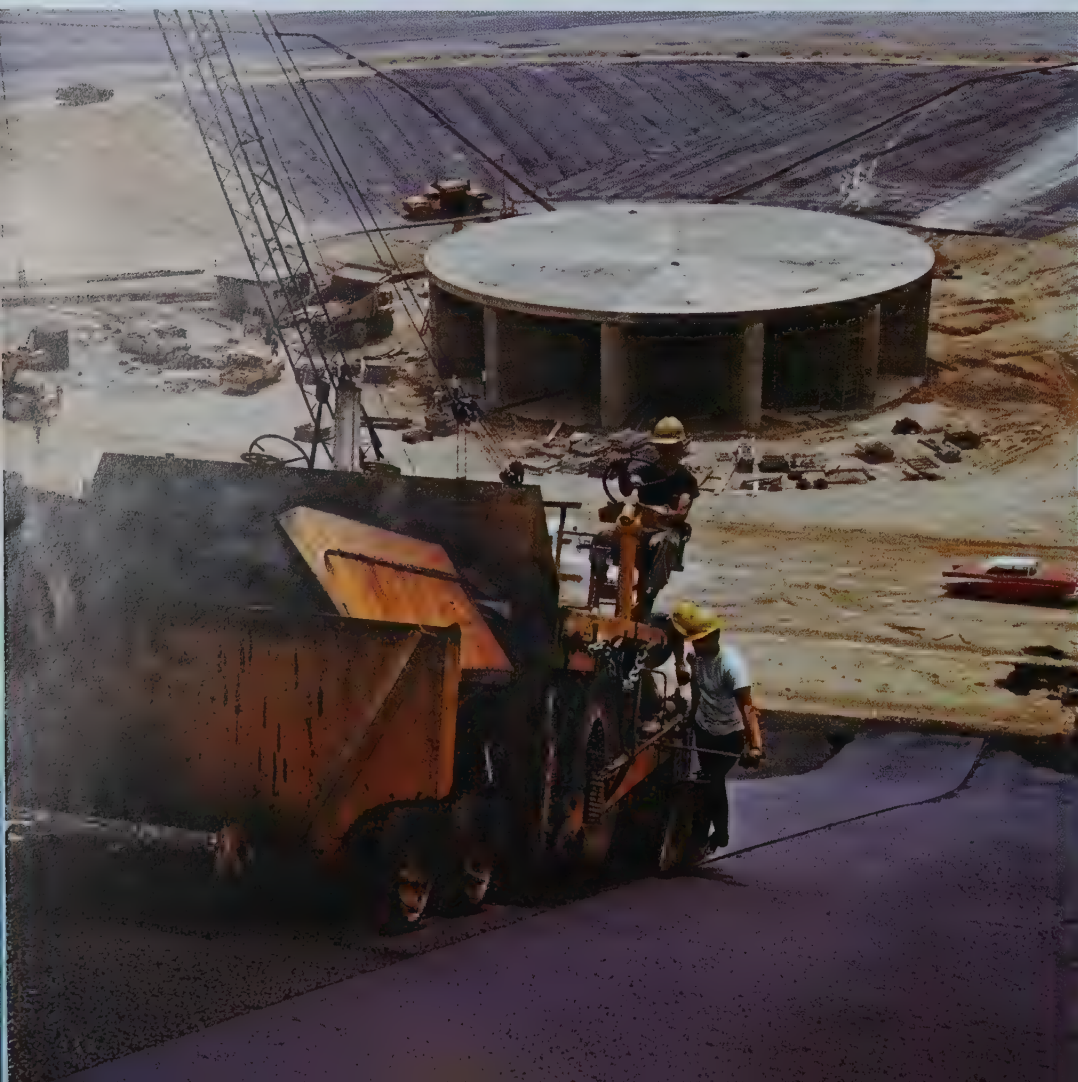
New Haven Trap Rock's stone quarry No. 1 in Connecticut is justly considered a regional phenomenon; contains reserves sufficient to last 200 years according to geologists. New Haven supplies stone for the populous regions of New York, New England and Long Island Sound.

College recruiting efforts continue at a high level. During 1969, the Company expects to interview 1,500 college students on campus. Talent needs of the Company are 28% in administration, 25% in sales and 47% in science, engineering and technical fields.

Relations with all groups of employees continue to be very good. Some 20 new contracts were negotiated, without substantial interruption of work, on terms considered competitive for the activity involved.

During 1968, the number of employees increased from 14,500 to more than 17,000. Plant safety records in all areas continued excellent; no serious labor relations marred operations. Morale was high throughout the Company, and a cooperative spirit remained noteworthy.

CORPORATE IDENTIFICATION PROGRAM
During 1968, efforts were initiated to acquaint the general public with the size and scope of the Company through a Corporate Identification Program. Advertisements were created and placed in leading national publications emphasizing Ashland—The Industrial Resources Company. It is planned to continue these efforts.



One of the most spectacular asphalt paving jobs ever undertaken by Warren Brothers was black-topping the sides and roof of the 1 billion-plus gallon reservoir of the Kinzua Dam in Allegheny National Park in Pennsylvania, during 1968.

Consolidated Source and Use of Funds

Year Ended September 30	1968	1967 Restated for Poolings of Interests	1967 As Previously Reported
Funds were provided from:			
Net income (after extraordinary charge in 1968)	$ 48,340,156	$ 48,384,337	$ 44,541,674
Depreciation, depletion, amortization, and retirements	44,252,340	39,983,455	37,753,894
Deferred federal income taxes	4,020,000	1,706,200	1,706,200
	96,612,496	90,073,992	84,001,768
Long-term debt increase before deducting conversions of $2,857,000 in 1968 and $5,812,000 in 1967	68,610,502	89,285,189	85,029,717
Changes in common and preferred shares, including shares in treasury	5,153,770	2,440,420	2,440,420
Property disposal	10,000,000		
Total Funds Provided	180,376,768	181,799,601	171,471,905
Funds were used for:			
Cash dividends	25,193,618	22,903,366	22,349,469
Property, plant and equipment additions	84,887,496	74,036,345	71,036,105
Chemical properties purchased		29,000,000	29,000,000
Patents, contracts, and other investments purchased	6,639,409	15,045,222	13,547,707
Other—net	(2,011,575)	998,375	568,230
Total Funds Used	114,708,948	141,983,308	136,501,511
Increase in Working Capital	$ 65,667,820	$ 39,816,293	$ 34,970,394

See notes to consolidated financial statements.

Consolidated Retained Earnings

Year Ended September 30	1968	1967 Restated for Poolings of Interests	1967 As Previously Reported
Balance at beginning of year	$197,110,900	$169,496,311	$155,848,582
Net income for the year	48,340,156	48,384,337	44,541,674
	245,451,056	217,880,648	200,390,256
Deductions:			
Cash dividends paid:			
$2.40 convertible preferred	2,069,706	1,906,947	1,906,947
Common stock—1968—$1.20 a share; 1967—$1.15 a share	22,933,157	20,442,522	20,442,522
	25,002,863	22,349,469	22,349,469
Dividends paid by pooled companies prior to acquisition	190,755	553,897	
Adjustments arising from pooling transactions	(7,747,600)	(2,133,618)	(2,133,618)
	17,446,018	20,769,748	20,215,851
Retained Earnings At End Of Year	$228,005,038	$197,110,900	$180,174,405

See notes to consolidated financial statements.

Consolidated Balance Sheet
Ashland Oil & Refining Company and Subsidiaries

Assets

September 30	1968	1967 Restated for Poolings of Interests	1967 As Previously Reported
Current Assets			
Cash	$ 49,404,184	$ 34,989,067	$ 28,752,101
Accounts and notes receivable, less reserve	163,039,316	135,709,183	119,671,044
Construction completed and in progress, at contract prices	9,768,321	10,050,604	10,050,604
Inventories—Note B	126,858,078	118,729,504	99,415,138
Prepaid expenses	10,176,417	7,183,201	6,759,999
Total Current Assets	359,246,316	306,661,559	264,648,886
Investments and Other Assets			
Foreign subsidiaries and affiliates—Note A	18,853,627	14,989,474	14,989,474
Other companies—at cost	6,203,889	4,368,580	3,489,011
Notes and accounts receivable	13,076,041	13,297,039	11,143,067
Patents, contracts and other, less amortization	10,030,786	9,611,432	9,611,432
	48,164,343	42,266,525	39,232,984
Property, Plant, and Equipment—on the basis of cost			
Production	139,229,641	135,486,048	135,486,048
Transportation	101,538,167	83,420,845	74,095,344
Manufacturing	216,622,782	193,140,919	190,812,739
Marketing	108,143,341	100,842,345	95,429,934
Road building	96,307,251	73,063,767	68,995,045
Other	16,781,051	15,442,030	13,842,431
	678,622,233	601,395,954	578,661,541
Less accumulated depreciation, depletion and amortization	349,204,827	311,607,482	302,131,512
	329,417,406	289,788,472	276,530,029
	$736,828,065	$638,716,556	$580,411,899

Liabilities and Stockholders' Equity

September 30	1968	1967 Restated for Poolings of Interests	1967 As Previously Reported
Current Liabilities			
Trade and other payables	$127,542,885	$123,037,873	$103,607,961
Income taxes	7,509,194	18,608,238	16,819,686
Current portion of long-term debt	2,300,325	8,789,356	3,014,857
Total Current Liabilities	137,352,404	150,435,467	123,442,504
Long-Term Debt—less current maturities—Note C	231,022,235	165,268,733	153,634,833
Other Long-Term Liabilities—Note C	8,903,133	7,071,738	7,071,738
Deferred Federal Income Taxes	7,175,500	3,155,500	3,155,500
Minority Interests in Consolidated Subsidiaries	1,050,960	990,780	990,780
Stockholders' Equity—Notes A, C, D, and E			
Capital stock:			
Cumulative preferred—without par value $2.40 convertible series of 1966	49,548,060	58,718,340	58,718,340
Common, par value $1.00 per share:			
Authorized 30,000,000 shares			
Outstanding 20,466,115 shares, including shares in treasury	20,466,115	19,277,209	18,173,408
Capital surplus—Note F	56,183,802	40,689,727	39,052,229
Retained earnings	228,005,038	197,110,900	180,174,405
	354,203,015	315,796,176	296,118,382
Less shares in treasury—at cost (in 1968—39,366 common and 36,653 preferred shares)	2,879,182	4,001,838	4,001,838
Total Stockholders' Equity	351,323,833	311,794,338	292,116,544
	$736,828,065	$638,716,556	$580,411,899

Commitments—Note G

See notes to consolidated financial statements.

Statement of Consolidated Income

Year Ended September 30	1968	1967 Restated for Poolings of Interests	1967 As Previously Reported
Income:			
Net sales and operating revenues*	$1,068,442,861	$953,428,053	$804,892,498
Dividends, royalties, foreign and miscellaneous income	13,582,413	9,039,814	8,358,370
	1,082,025,274	962,467,867	813,250,868
Costs and expenses:			
Cost of sales and operating expenses	801,518,870	727,471,569	600,074,503
Selling, administrative and general expenses	135,516,564	107,841,153	95,341,162
Provision for depreciation, depletion, amortization, and retirements—Note H	44,252,340	39,983,455	37,753,894
Exploration expenses, including nonproductive wells	3,155,944	3,102,842	3,102,842
Interest on long-term debt	10,426,618	5,663,511	4,766,793
	994,870,336	884,062,530	741,039,194
Income Before Income Taxes and Extraordinary Charge	87,154,938	78,405,337	72,211,674
Income taxes:			
Currently payable (including surcharge of $2,485,000 for 1968)	30,775,000	28,314,800	25,963,800
Deferred	4,020,000	1,706,200	1,706,200
	34,795,000	30,021,000	27,670,000
Income Before Extraordinary Charge	52,359,938	48,384,337	44,541,674
Extraordinary charge—write-off of offshore California oil and gas leases, less reduction in income taxes of $4,505,000	4,019,782		
Net Income	$ 48,340,156	$ 48,384,337	$ 44,541,674
Income per share of common stock:			
Based upon average number of shares outstanding:			
Income before extraordinary charge	$2.49	$2.41	$2.36
Extraordinary charge, net of tax	(.20)		
Net income	$2.29	$2.41	$2.36
Assuming conversion of all preferred stock and debentures and exercise of employee stock options:			
Income before extraordinary charge	$2.27	$2.27	$2.19
Extraordinary charge, net of tax	(.17)		
Net income	$2.10	$2.27	$2.19

*Excludes excise taxes collected from customers and resales of purchased crude oil.
See notes to consolidated financial statements.

Notes to Consolidated Financial Statements / September 30, 1968

Note A—Principles of Consolidation and Poolings of Interests

The consolidated financial statements include the accounts of all domestic and Canadian subsidiaries. For the year ended September 30, 1968, the Company has included in consolidated income, on an equity basis, its share of the net income of foreign subsidiaries and affiliates; in prior years only the dividends received from such companies were recorded. The effect of this accounting change upon the accompanying financial statements was not significant. At September 30, 1968, investments in foreign subsidiaries and affiliates are carried at cost plus the undistributed income for 1968; such carrying amount approximates the underlying net assets of the companies.

During 1968, the Company acquired all of the stock or assets of certain other companies in exchange for 1,784,796 shares of common stock including 53,114 shares in treasury. These transactions have been accounted for as poolings of interests, and accordingly, the financial statements for 1968 include the results of operations of the acquired companies for the full year and the financial statements for 1967 have been restated on a comparable basis.

Note B—Inventories

Inventories at September 30, 1968, include crude oil of $23,356,323, and products of $97,101,996. Approximately 50% of the crude oil and products are stated at LIFO cost and the remainder at cost determined under the first-in, first-out method. The aggregate cost of the inventories is not in excess of market.

Note C—Long-Term Debt and Other Long-Term Liabilities

	1968	1967 (Restated)
4½% debentures, due 1987—sinking fund requirements of $800,000 annually through 1972, $1,100,000 annually from 1973 through 1977, and increased amounts thereafter ($1,739,000 has been prepaid)	$22,461,000	$23,955,000
4.35% debentures, due 1988—sinking fund requirements of $800,000 annually through 1973, $1,100,000 annually from 1974 through 1978, and increased amounts thereafter ($1,752,000 has been prepaid)	23,248,000	24,740,000
3⅞% convertible subordinated debentures, due 1993—called for redemption September 10, 1968	—	3,056,000
6.15% debentures, due 1992—sinking fund requirements of $2,400,000 annually from 1972	60,000,000	49,455,000
Revolving loans	27,000,000	15,000,000
5% notes due October 1, 1970	7,410,000	29,820,000
4¾% convertible subordinated debentures, due 1993—convertible into common stock at $50.00 per share; sinking fund requirements of $3,500,000 annually from 1979	60,000,000	—
5% subordinated guaranteed debentures, due 1988, of Ashland Overseas Finance Corporation —convertible into common stock at $40.00 per share beginning August 1, 1969; sinking fund requirements of $1,110,000 annually from 1979	20,000,000	—
Other debentures and notes, 3% to 6½% due 1970 to 1982	10,903,235	7,608,833
Indebtedness of pooled companies	—	11,633,900
Total	$231,022,235	$165,268,733

The Company has entered into a revolving and term loan agreement with banks for $75,000,000 and at September 30, 1968, $27,000,000 had been borrowed under this agreement. Any revolving loans under the agreement may be refunded into a term loan on April 1, 1970, payable over five years in quarterly installments. Interest is payable at the prime rate with respect to revolving loans and on any term loan at ½ of 1% over the prime rate in effect on April 1, 1970.

The long-term debt agreements restrict payment of cash dividends and other distributions with respect to capital stock. Consolidated retained earnings of approximately $187,000,000 was not so restricted at September 30, 1968.

Other long-term liabilities include accounts not currently payable and miscellaneous reserves.

Note D—Capital Stock

The cumulative preferred stock consists of 3,000,000 authorized shares, without par value, issuable in series. The initial series of this stock (consisting of 1,500,000 shares) is convertible at the option of the holder into common stock of the Company at the rate of one share for two shares of common, and is carried in the accounts of the Company at $60 per share (the redemption price after March 15, 1981). Sinking fund payments are required beginning March 15, 1976, and the shares may be redeemed after that date at specified prices. The involuntary liquidation price of this series is $62.40 per share which at September 30, 1968 (excluding 36,653 shares in treasury) aggregated $1,893,955 more than the $60 per share carrying amount. At September 30, 1968, a total of 1,048,482 shares had been issued of which 221,997 shares have been converted into common stock (including 152,838 shares with carrying value of $9,170,280 in fiscal 1968) and 684 shares cancelled.

The increase during the year in $1.00 par value common stock consisted of $627,881 for shares issued in acquisitions of other companies, $489,893 for shares issued for conversion of preferred stock and debentures, and $71,485 for shares sold to employees under key personnel option plans. Changes in treasury shares consisted of decreases of $1,344,622 for 53,114 shares of common stock issued in acquisitions, and $63,944 for 995 shares of preferred stock sold to employees under stock options less $285,910 for 33,601 shares of the Company's common stock owned by an acquired company.

At September 30, 1968, there were 3,352,012 shares of common stock reserved for conversion of the convertible subordinated debentures and convertible preferred stock and 753,054 common shares and 205 preferred shares reserved for the exercise of options to employees. In addition, 147,350 shares of common stock were reserved for options which may be granted under the 1967 stock option plan.

In connection with certain companies acquired, the Company has agreed to issue additional shares of common stock (expected not to exceed 300,000 shares) contingent upon future earnings of such companies and market prices of the Company's stock.

On November 1, 1968, the Board of Directors approved an increase in authorized shares of common stock to 60,000,000 shares, subject to approval at the annual stockholders' meeting.

Note E—Stock Option Plans for Employees

Under key personnel stock option plans, options have been granted to certain employees to purchase common stock at specified prices (not less than fair market value on date of grant for options granted in 1965 or subsequently and 95% of market value for options granted in prior years). In addition, in accordance with agreements under which certain companies were acquired, the Company assumed, in terms of an equivalent number of Ashland common and preferred shares, the stock options outstanding of such companies. During the year, options for 71,485 common shares and 995 preferred shares were exercised, and options for 20,025 common shares were cancelled.

At September 30, 1968, options were outstanding for 753,054 shares of common stock and 205 shares of preferred stock. The options for common stock consist of 3,213 shares at $9.50 per share, 166,441 shares at $20.00 per share, 553,150 shares at $34.00 per share and 30,250 shares at $39.13 per share. The option price for the preferred stock is $35.63 per share.

The options granted in 1960 and 1965 expire in 1970, and options granted in 1967 and 1968 expire in 1972 and 1973, respectively, or generally three months after termination of employment (except in case of death or disability to which special provisions apply). The assumed options expire in 1970 or prior.

Note F—Capital Surplus

Consolidated capital surplus increased in the amount of $15,494,075 during the year. Increases consisted of $2,705,168 arising from poolings of interests, $1,257,254 for the difference between proceeds from sale of common and preferred shares to employees under stock options and par value of new shares sold, $2,667,049 from conversion of subordinated debentures, and $8,864,604 from conversion of preferred stock, into 184,217 and 305,676 shares of common stock, respectively.

Note G—Commitments and Contingencies

The Company has long-term leases and is contingently liable for certain loans of other companies. In the opinion of management, no material loss will result from any of these agreements. Data relating to the lease agreements follows:

Type of Property Leased	Cost of Property Leased	Expiration Dates of Leases	Average Annual Rentals
Pipeline facilities	$43,000,000	1983 to 1993	$3,000,000
Service stations and other marketing properties	18,500,000	1985 to 1994	1,200,000
Manufacturing facilities (including cost of $27,000,000 not yet completed)	35,800,000	1992 and 1993	2,700,000
	$97,300,000		$6,900,000

Annual rentals referred to in the above table are as follows for the fiscal year 1969—$7,700,000; 1970—18,300,000; 1971—$8,700,000; 1972—$8,500,000; 1973—$8,400,000; and lesser amounts thereafter.

The Company proposes to enter into leases of service station land and improvements and pipeline facilities costing approximately $25,000,000 and requiring rentals over primary terms of 25 years.

The Company also has numerous long-term leases on various equipment and facilities, for which the amount of minimum annual rentals is not considered significant.

Guaranties of loans of foreign subsidiaries and affiliates (other than Canadian) and other companies amounted to approximately $4,800,000 at September 30, 1968.

Note H—Depreciation Change and Certain Accounting Policies

Effective October 1, 1967, the Company changed from the declining balance to the straight-line method of providing depreciation on most of its properties for financial reporting purposes. The declining balance method was continued for income tax purposes. Net income, after providing for deferred income taxes, was increased approximately $2,570,000 (12.7¢ per share) as a result of this change.

Investment tax credits are applied as a reduction of income taxes on a flow-through basis. This credit amounted to approximately $5,100,000 for 1968 and $1,900,000 for 1967.

The Company's policy is to capitalize for book purposes and to amortize on a unit of production basis the intangible drilling costs of producing wells and the costs of lifting that portion of oil and gas dedicated to production payments. Such costs are deducted as incurred for income tax purposes.

Note I—Employees' Pensions and Retirements

The Company and its subsidiaries have several pension and retirement plans. The principal plans are contributory and provide generally that employees become eligible to enter the plan at age 30 and after short waiting periods. The amounts charged to expense for 1968 and 1967 were $3,379,000 and $1,897,000, respectively. At September 30, 1968, the Company had fully provided for all vested benefits. The Company's policy is to fund pension costs accrued.

Note J—Construction Income

For the year ended September 30, 1968, the amounts included in the accompanying statement of consolidated income were $171,787,094 for road building and other construction revenues and $144,570,517 for road building and other construction costs (exclusive of items separately classified).

ACCOUNTANTS' REPORT

To the Stockholders and Board of Directors
Ashland Oil & Refining Company
Ashland, Kentucky

We have examined the consolidated balance sheet of Ashland Oil & Refining Company and subsidiaries as of September 30, 1968, and the related statements of consolidated income, retained earnings, and source and use of funds for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We made a similar examination of the financial statements for the preceding year.

In our opinion, the accompanying balance sheet and statements of income, retained earnings, and source and use of funds present fairly the consolidated financial position of Ashland Oil & Refining Company and subsidiaries at September 30, 1968, and the consolidated results of their operations and the source and use of funds for the year then ended, in conformity with generally accepted accounting principles applied, except for the changes (which we approve) in depreciation and accounting for income from foreign subsidiaries and affiliates as explained in Notes A and H, on a basis consistent with that of the preceding year.

Ernst & Ernst

Certified Public Accountants

Cleveland, Ohio
November 1, 1968

Ashland Oil & Refining Company and Subsidiaries
Ten Year Comparison

Consolidated Operating Statement

Year Ended September 30	1968	1967
As Originally Reported to Shareholders		
Net sales and operating revenues (1)	$1,068,442,861	$804,892,498
Cash flow—net income plus depreciation, etc.	96,612,496	82,295,568
Net income	48,340,156(3)	44,541,674
Income per common share	$2.29(3)	$2.36
Adjusted For Poolings of Interests		
Income:		
Net sales and operating revenues (1)	$1,068,442,861	$953,428,053
Dividends, royalties, foreign, and miscellaneous income	13,582,413	9,039,814
	1,082,025,274	962,467,867
Costs and expenses:		
Cost of sales and operating expenses	801,518,870	727,471,569
Selling, administrative, and general expenses	135,516,564	107,841,153
Provision for depreciation, depletion, amortization and retirements	44,252,340	39,983,455
Exploration expenses including nonproductive wells	3,155,944	3,102,842
Interest on long-term debt	10,426,618	5,663,511
	994,870,336	884,062,530
Income before income taxes	87,154,938	78,405,337
Extraordinary charge (net of income taxes of $4,505,000)	4,019,782	—
Income taxes	34,795,000	30,021,000
Net Income	$ 48,340,156(3)	$48,384,337
Earnings per share of common stock based on average number outstanding (2)	$2.29(3)	$2.41

(1) Does not include excise taxes or sales of crude oil.
(2) Adjusted for two-for-one stock split in January, 1966.
(3) Reflects write-off of offshore California oil and gas leases in 1968 which reduced earnings 20¢ per share.

Consolidated Balance Sheet

at September 30	1968	1967
ASSETS		
Current assets:		
Cash and marketable securities	$ 49,404,184	$ 34,989,067
Accounts receivable	172,807,637	145,759,787
Inventories	126,858,078	118,729,504
Prepaid taxes, insurance and miscellaneous	10,176,417	7,183,201
Total current assets	359,246,316	306,661,559
Investments and other assets	48,164,343	42,266,525
Property account—net	329,417,406	289,788,472
Total Assets	$ 736,828,065	$638,716,556
LIABILITIES		
Current liabilities	$ 137,352,404	$150,435,467
Long-term debt	231,022,235	165,268,733
Other liabilities and reserves	17,129,593	11,218,018
Capital stock: Preferred	49,548,060	58,718,340
Capital stock: Common	20,466,115	19,277,209
Surplus	284,188,840	237,800,627
Less stock in treasury—at cost	−2,879,182	−4,001,838
Total Liabilities	$ 736,828,065	$638,716,556

The following years have been adjusted to reflect companies acquired on a pooling of interests basis: 1962 through 1965 for companies acquired in 1966; 1966 for companies acquired in 1967 and 1964 through 1967 for companies acquired in 1968.

	1966	1965	1964	1963	1962	1961	1960	1959
	$699,308,039	$447,743,776	$394,372,467	$366,107,810	$318,139,197	$312,875,460	$303,673,338	$300,644,158
	77,161,050	57,515,478	49,568,459	39,560,135	32,026,890	31,406,440	30,687,962	29,173,505
	42,924,420	31,594,004	23,734,734	18,109,420	15,324,447	15,251,456	14,926,916	14,349,025
	$2.40	$2.01	$1.54	$1.18	$1.03	$1.06	$1.06	$1.04
	$853,607,531	$709,167,862	$615,477,668	$490,514,810	$427,663,197	$312,875,460	$303,673,338	$300,644,158
	9,239,717	7,618,530	6,626,087	5,009,735	3,864,993	1,963,021	1,531,000	2,011,753
	862,847,248	716,786,392	622,103,755	495,524,545	431,528,190	314,838,481	305,204,338	302,655,911
	646,985,060	538,845,068	469,322,482	378,231,020	333,789,170	232,973,500	224,591,716	224,311,383
	92,895,544	73,964,270	66,087,928	49,930,428	44,640,707	35,924,443	34,989,281	32,596,663
	36,856,229	32,891,348	32,216,847	25,651,715	21,810,787	17,678,451	17,005,104	15,859,180
	3,561,022	4,441,203	3,458,291	3,484,896	1,891,658	1,910,721	1,605,336	1,689,228
	3,770,211	4,464,590	4,932,096	3,656,066	2,022,421	1,409,910	1,110,985	1,020,432
	784,068,066	654,606,479	576,017,644	460,954,125	404,154,743	289,897,025	279,302,422	275,476,886
	78,779,182	62,179,913	46,086,111	34,570,420	27,373,447	24,941,456	25,901,916	27,179,025
	—	—	—	—	—	—	—	—
	30,690,000	24,063,000	16,989,000	13,584,000	10,405,000	9,690,000	10,975,000	12,830,000
	$ 48,089,182	$ 38,116,913	$ 29,097,111	$ 20,986,420	$ 16,968,447	$ 15,251,456	$ 14,926,916	$ 14,349,025
	$2.48	$2.05	$1.57	$1.19	$.97	$1.06	$1.06	$1.04

	1966	1965	1964	1963	1962	1961	1960	1959
	$ 38,819,763	$ 63,251,005	$ 39,040,622	$ 25,102,469	$ 19,987,943	$ 10,807,226	$ 16,501,549	$ 17,180,740
	122,929,099	102,152,298	77,227,787	58,637,444	49,014,903	30,535,424	28,356,050	27,221,182
	87,041,684	76,932,009	78,105,590	68,476,392	57,465,965	51,493,694	51,090,023	48,555,677
	5,641,633	3,776,153	3,234,739	3,542,723	2,656,841	3,288,577	2,458,106	2,150,954
	254,432,179	246,111,465	197,608,738	155,759,028	129,125,652	96,124,921	98,405,728	95,108,553
	23,994,689	24,816,879	26,638,429	30,300,019	20,135,067	17,737,794	21,307,976	14,754,154
	220,719,106	198,275,751	190,420,801	171,668,886	125,574,805	109,413,202	97,624,385	88,752,073
	$499,145,974	$469,204,095	$414,667,968	$357,727,933	$274,835,524	$223,275,917	$217,338,089	$198,614,780
	$138,700,151	$121,469,143	$ 85,557,280	$ 57,269,064	$ 52,152,376	$ 43,206,859	$ 43,771,564	$ 44,346,713
	78,129,097	94,039,055	109,094,886	109,550,714	47,178,000	37,454,000	37,984,000	24,547,000
	10,078,460	8,780,925	8,438,447	6,356,604	5,292,535	4,305,050	2,713,971	3,435,514
	48,151,860	50,081,880	49,927,680	49,071,680	50,349,980	19,495,240	26,971,410	29,814,890
	18,764,872	18,038,288	17,416,654	16,186,515	16,091,519	14,101,776	13,159,382	12,204,924
	216,900,078	182,642,046	149,435,135	123,215,223	113,249,928	110,344,750	96,707,960	84,265,739
	−11,578,544	−5,847,242	−5,202,114	−3,921,867	−9,478,814	−5,631,758	−3,970,198	—
	$499,145,974	$469,204,095	$414,667,968	$357,727,933	$274,835,524	$223,275,917	$217,338,089	$198,614,780

Directory of Operations

▲ Exploration and Production Activities
● Chemical Operations
■ Subsidiaries

PETROLEUM

Companies:

Ashland Oil & Refining Company, Allied Oil Company, Valvoline Oil Company.

Principal Offices:

Ashland, Ky.; Buffalo; Cleveland; Freedom, Pa.; Louisville; New York.

Refineries:

Ashland, Ky.; Buffalo; Canton, Ohio; Findlay, Ohio; Freedom, Pa.; Louisville.

Product Terminals:

Atlanta; Baltimore; Bowling Green, Ky.; Carteret, N. J.; Chicago; Cincinnati; Clarksville, Ind.; Cleveland; Columbus, Ohio; Covington, Ky.; Detroit; Erie, Pa.; Evansville, Ind.; Floreffe, Pa.; Follansbee, West Virginia; Freedom, Pa.; Hartford, Conn.; Hartford, Ill.; Huntington, Ind.; Jackson, Tenn.; Kenova, West Virginia; Kuttawa, Ky.; Lexington; Louisville; Marietta, Ohio; Memphis; Nashville; Niles, Ohio; North Vernon, Ind.; Owensboro, Ky.; Paducah, Ky.; Passaic, N. J.; Philadelphia; Pittsburgh; Spartanburg, S. C.; St. Elmo, Ill.; Toledo, Ohio; Tupelo, Miss.; Wellsville, Ohio.

Exploration and Production Offices:

Calgary, Alberta; Evansville, Ind.; Houston; Oklahoma City.

Sales and Operating Offices:

Alton, Ill.; Atlanta; Baltimore; Canton, Ohio; Chicago; Cincinnati; Cleveland; Columbus, Ohio; Dallas; Dedham, Mass.; Detroit; Findlay, Ohio; Los Angeles; Nashville; New York; Pittsburgh; Portland; San Diego; San Francisco; Seattle; St. Louis; Toronto; Vancouver, B. C.

PETROLEUM GAS LIQUIDS

Company:

Wanda Petroleum Company.

Principal Office:

Houston, Tex.

Fractionating Plants and Terminals:

Breaux Bridge, La.; Hainesville, Tex.; Pierce Junction (Houston), Tex.

CHEMICALS AND PETROCHEMICALS

Companies:

Ashland Chemical Company, F. H. Ross & Company.

Principal Offices:

Ashland, Ky.; Charlotte, N.C.; Cleveland, Columbus, Ohio; Houston.

Manufacturing Plants:

Aransas Pass, Texas; Ashland, Ky.; Baytown, Texas; Belpre, Ohio; Bethel, Conn.; Buffalo; Calumet City, Ill.; Cleveland; Colony, Wyoming; Eunice, N. M.; Fords, N. J.; Great Meadows, N. J.; Hansford, West Virginia; Ivanhoe, La.; Los Angeles, Mojave, Calif.; Newark; Paramount, Calif.; Pensacola, Fla.; Peoria, Ill.; Shamrock, Texas; St. Louis; Toronto; Thomasville, N. C.; Upton, Wyoming; Willow Island, West Virginia.

Research and Technical Service Centers:

Akron; Ashland, Ky.; Bloomington, Minn.; Cleveland; Fords, N. J.; Great Meadows, N. J.; Houston; Los Angeles; Minneapolis; Newark; Peoria, Ill.

Distribution Plants and Offices:

Akron, Ohio; Ashland, Ky.; Atlanta, Ga.; Baton Rouge, La.; Bellaire, Ohio; Binghamton, N.Y.; Birmingham, Ala.; Buffalo, N. Y.; Charlotte, N. C.; Chicago, Ill.; Cincinnati; Cleveland; Columbia, S. C.; Columbus, Ga.; Columbus, Ohio; Dallas; Dayton, Ohio; Decatur, Ill.; Detroit; Erie, Pa.; Greensboro, N.C.; Greenville, S. C.; Houston; Huntington, W.Va.; Indianapolis; Jackson, Miss.; Jacksonville, Fla.; Johnstown, N. Y.; Kansas City, Mo.; Knoxville, Tenn.; Lansing, Mich.; Los Angeles; Louisville, Ky.; Memphis, Tenn.; Mobile, Ala.; Newark, N. J.; New York, N. Y.; North Miami Beach, Fla.; Oklahoma City; Orlando, Fla.; Pittsburgh; Raleigh, N. C.; Rensselaer, N. Y.; St. Louis, Mo.; San Francisco; Savannah, Ga.; South Bend, Ind.; Syracuse, N. Y.; Tampa, Fla.; Toronto, Ont., Canada; Tulsa, Okla.; Westfield, Mass.;

HIGHWAY PAVING, CONSTRUCTION, AND CONSTRUCTION MATERIALS

Companies:

Arkhola Sand & Gravel Company, Fort Smith, Arkansas

Subsidiary:
Yahola Sand & Gravel Company, Muskogee, Oklahoma

P. R. Boston, Inc., North Berwick, Maine
Columbia Bitulithic, Ltd., Vancouver, B. C.
MacDougald-Warren, Inc., Atlanta, Georgia
Magaw Construction Company, Richmond, Indiana

Subsidiary:
Muncie Paving Asphalt, Inc., Muncie, Indiana

The New Haven Trap Rock Company, New Haven, Connecticut

Construction Services Division:
Deep River, Conn., North Branford, Conn., North Haven, Conn., Newtown, Conn., Plainville, Conn., Wallingford, Conn., Waterbury, Conn., Wilsonville, Conn., Winsted, Conn.

Quarry Division:
Bass River, Mass., Brewster (N.Y.), Danbury, Conn., Glen Cove (N.Y.), North Branford, Conn., Plainville, Conn., Port Jefferson (N.Y.), Wallingford, Conn., Wauregan, Conn., Worcester (Mass.).

Machine Products Division
Hamden, Conn.

Thompson-Arthur Paving Company, Greensboro, North Carolina

Operating Districts:
Greensboro and High Point, North Carolina; Danville and Martinsville, Virginia

Trotti & Thomson, Inc., Beaumont, Texas
Warren Bituminous Paving Company, Ltd., Downsview, Ontario

Operating Districts:
Toronto; Kitchener, Peterborough, St. Catharines, and Sudbury, Ontario

Subsidiaries:
Hewitson Construction Company, Ltd., Port Arthur, Ontario, Towland Construction, Limited, London, Kenora, and Sault Ste. Marie, Ontario, Towland (London) Ltd., London, Ontario, Warren (Maritimes) Limited, New Glasgow, Nova Scotia; Charlottetown, P.E.I.

Warren Brothers Company, Cambridge, Massachusetts

Operating Districts:
Birmingham, Ala.; Middletown, Del.; Fort Myers, Jacksonville and Sarasota, Fla.; Gilbertsville, Ky.; New Orleans, La.; Benton and Portland, Maine; Acushnet, Brockton and Saugus, Mass.; Columbus, Greenville and Jackson, Miss.; St. Louis, Mo.; Newark and Prospect Park, N.J.; Baldwin, L.I., Clockville, Fayette and Syracuse, N.Y.; Asheville and Winston-Salem, N.C.; Knoxville, Memphis, Nashville and Richardson Landing, Tenn.; Dallas, Fort Worth and Houston, Tex.

TIRES, RETREAD RUBBER, TIRE SERVICING EQUIPMENT

Company:

O. K. Tire and Rubber Company.

Principal Office:

Littleton, Colorado.

Plants:

Goldendale, Wash.; Guntersville, Alabama; Littleton, Colorado.

FIBERGLASS BOATS

Company:

Southern Fiber Glass Products, Inc.

Principal Office and Plant:

Sanford, Fla.

FIBER PIPE

Company:

Kyova Pipe Company.

Sales Office & Plant:

Ironton, Ohio.

PIPELINE OPERATIONS

Company:

Ashland Pipeline Company.

Principal Office

Ashland, Ky.

RIVER AND LAKE TRANSPORTATION

Companies:

Cleveland Tankers, Inc.; Inland Towing Company.

Principal Offices:

Ashland, Ky.; Cleveland.

OVERSEAS OPERATIONS

Valvoline Sales and Operating Offices:

Birkenhead, England; Caracas, Venezuela; Dordrecht, Holland; Johannesburg, South Africa; Sydney, Australia.

Carbon Black Plants:

Sydney, Australia; Bombay, India; Port Jerome, France; Valencia, Venezuela.

Exploration and Production:

Brunei; Indonesia; Kuwait-Saudi Arabia Neutral Zone; Lake Maracaibo and Monagas, Venezuela; Libya.

Chemical Subsidiaries and Affiliates:

Birmingham, England; Brussels, Belgium; Caracas, Venezuela; Castro-Urdiales, Spain; Geertruidenberg, Holland; Hilden, Germany; Landskrona, Sweden; Milan, Italy; Paris, France; Rühle, Germany; San Juan, Mexico; Sydney, Australia; Zwolle, Holland.

Affiliated Companies and Divisions

ALLIED OIL COMPANY, Cleveland, Ohio
FRANK C. COLEGROVE, President
JOHN G. CLYMER, Vice President
DWAINE E. GULLETT, Vice President
Operations: Supplier of fuel oil for industry in the central United States and Canada.

ASHLAND CHEMICAL COMPANY, Columbus, Ohio
ROBERT E. YANCEY, President
WILLIAM H. GAMMON, Senior Vice President
F. M. MOFFITT, Senior Vice President
BURTON W. SCHROEDER, Group Vice President
GAYLE J. WELLS, Group Vice President
BILLY W. DAVIS, Administrative Vice President
ANTON DORFMUELLER, JR., Vice President and General Manager Foundry Products
MORRISON M. BUMP, Vice President
JAMES C. KONEN, Vice President and General Manager International Div.
E. A. VON DOERSTEN, Vice President and General Manager Industrial Chemicals & Solvents Division
J. C. BURKHOLDER, Vice President and General Manager Resins & Plastics Division
ROBERT C. FULTON, Vice President and General Manager Chemical Products Division

ASHLAND PIPELINE COMPANY, Ashland, Kentucky
WILLIAM T. GODDARD, President
JACK McCLURE, Vice President
CARLOS C. RABB, Vice President

THE NEW HAVEN TRAP ROCK COMPANY, New Haven, Connecticut
ROBERT S. REIGELUTH, President
THEODORE W. JONES, Vice President-Construction Services
PETER B. DUNNING, Vice President-Quarries
JOSEPH B. KITTREDGE, Vice President and Sales Manager
STEPHEN J. BARCSANSKY, Vice President-Machine Products Division
LESTER E. HINTZ, Secretary and Treasurer
Principal Products: Crushed rock, bituminous concrete and aircraft parts.

O.K. TIRE AND RUBBER CO., INC., Littleton, Colorado
FLOYD A. THOMASSON, JR., President
JACK KVARFORDT, Vice President
PALMER C. TALBUTT, Vice President
Operations: Marketer of private brand tires in the United States and Canada; manufacturer of tread rubber, and supplier of retread material and servicing equipment.

F. H. ROSS & COMPANY, Charlotte, North Carolina
F. H. ROSS, JR., President/Treasurer
JAMES M. ROSS, Vice President/Secretary
HARVEY T. SKAGGS, Vice President
HARRY E. RICHARDSON, Vice President
GOSTA ENGLUND, Vice President
WILLIAM S. HORTON, Vice President/Assistant Secretary-Treasurer

SOUTHERN FIBER GLASS PRODUCTS, INC., Sanford, Florida
HAROLD L. SLAMA, Chairman of the Board
EARL M. SMITH, President
FRANK CLOSSER, Vice President
JACK EICHELBERGER, Vice President
BOB M. COOK, Secretary-Treasurer

VALVOLINE OIL COMPANY, Freedom, Pennsylvania
EARLE M. CRAIG, Chairman
EARL W. WEAVER, President
WILLIAM M. CARTER, JR., Executive Vice President
JOHN F. BOEHM, Vice President-Sales
DON W. DETJEN, Vice President-Operations
Operations: Manufacturer and marketer of automotive, industrial, marine and aviation lubricants in the United States and Canada, and in 65 other nations.

WANDA PETROLEUM COMPANY, Houston, Texas
T. C. MORROW, Chairman of the Board
C. F. MONTGOMERY, President
D. L. DUNCAN, Executive Vice President
C. H. SWANSON, Vice President of Domestic Sales
W. L. HUNTER, Vice President of Planning and Development

WARREN BROTHERS COMPANY, Cambridge, Massachusetts
R. L. SMITH, President
G. A. BRUNO, Regional Vice President
P. M. CHURTON, Regional Vice President
J. H. HINDS, Regional Vice President
R. F. CONARD, Regional Vice President
I. M. JONES, Regional Vice President
W. O. WHITING, Vice President-Treasurer
HARRY DOWNS, Secretary
C. M. HAVEY, Assistant Treasurer
H. H. POOLEY, Assistant Treasurer
Operations: Paving and highway construction firm with operations in 20 states and four provinces of Canada.

General Offices
ASHLAND OIL & REFINING COMPANY
1401 Winchester Avenue
Ashland, Kentucky

Transfer Offices
ASHLAND OIL & REFINING COMPANY
Ashland, Kentucky

THE CHASE MANHATTAN BANK
New York, New York

Registrars
SECOND NATIONAL BANK
Ashland, Kentucky

MORGAN GUARANTY TRUST COMPANY OF NEW YORK
New York, New York

The common stock of Ashland Oil & Refining Company is listed on the New York and Midwest Stock Exchanges and has trading privileges on the Philadelphia-Baltimore, Boston, Cincinnati, Pacific Coast and Amsterdam Stock Exchanges. The preferred stock of the Company is listed on the New York Stock Exchange.

Ashland Oil & Refining Company is incorporated under the Laws of the Commonwealth of Kentucky.

Printed in U.S.A.

DIRECTORS

ORIN E. ATKINS
Ashland, Kentucky

PAUL G. BLAZER, JR.
Ashland, Kentucky

REXFORD S. BLAZER
Ashland, Kentucky

JAMES F. BREUIL
Miami Beach, Florida

EARLE M. CRAIG
Pittsburgh, Pennsylvania

E. S. DABNEY
Lexington, Kentucky

J. ROBERT FISHER
New York, New York

W. C. FREEMAN
Chicago, Illinois

WILLIAM H. GAMMON
Columbus, Ohio

R. D. GORDON, JR.
Oklahoma City, Oklahoma

JOHN R. HALL
Ashland, Kentucky

ANGUS W. McDONALD
Lexington, Kentucky

T. C. MORROW
Houston, Texas

ROBERT S. REIGELUTH
New Haven, Connecticut

E. W. SEATON
Ashland, Kentucky

ROSS K. SHOOLROY
Wooster, Ohio

PALMER C. TALBUTT
Ashland, Kentucky

JAMES W. VANDEVEER
Dallas, Texas

EVERETT F. WELLS
Ashland, Kentucky

ROBERT E. YANCEY
Ashland, Kentucky

PRINCIPAL OFFICERS

REXFORD S. BLAZER
Chairman of the Board

EVERETT F. WELLS
Chairman of the Executive Committee

ORIN E. ATKINS
President, Chairman of the Finance Committee

ROBERT E. YANCEY
Senior Vice President

JOHN R. HALL
Administrative Vice President

ROBERT T. McCOWAN
Administrative Vice President

WILLIAM R. SEATON
Administrative Vice President

JOSEPH C. DAVIS
Vice President

WILLIAM H. GAMMON
Vice President

R. D. GORDON, JR.
Vice President

J. D. HUGHES
Vice President

ARLOE W. MAYNE
Vice President and General Counsel

FRANKLYN M. MOFFITT
Vice President

CARLTON D. WEAVER
Vice President

EARL W. WEAVER
Vice President

ROLAND A. WHEALY
Vice President

JOHN FRED WILLIAMS
Vice President

EDWARD EMRICK, JR.
Treasurer-Transfer Agent

ANGUS W. McDONALD
Secretary

KENNETH B. DENTON
Auditor

ARTHUR J. POINTS
Controller

WILBUR E. CHELLGREN
Assistant Controller-Chief Accountant

JOHN H. WALLACE, JR.
Deputy Controller

EXECUTIVE ASSISTANTS

JAMES H. BARKER, JR.
MORRISON M. BUMP
HAROLD G. HOULTON
CHARLES J. LUELLEN
WILLIAM C. NELSON
THORWELL H. PAULSEN
OTTO J. SCOTT
HAROLD E. SULLIVAN
CLYDE M. WEBB
EDWIN G. WINSTEAD
ERNEST A. WYE, JR.

EXECUTIVE PERSONNEL

RAY ALTHOUSE
Manager Gas Sales

J. K. BARRON
Purchasing Agent

WILLIAM D. BASKETT, JR.
Manager Trade Relations

DAVID A. BELDON
General Manager Traffic and Terminals

G. FRED CHARLES
Assistant Secretary-Attorney

MACK A. CHRISTIAN, JR.
General Manager Data Processing

C. A. DANIELSON
Assistant Controller

KENNETH DAVIS
Refinery Products Coordinator

G. WARD DISBROW
Manager River Transportation

HERBERT T. DORSETT
Insurance Manager

ROBERT L. GRAY
Manager River Operations

CHARLES B. HOGG, JR.
Assistant Controller

D. H. JENKS, JR.
Coordinator Asphalt Operations

WALTER A. KETRON
Manager TBA and Specialty Sales

PAUL M. KINNAIRD
Manager Supply and Distribution

GENE W. KRAUSE
Assistant Director of Personnel

JOHN M. KUENDIG
Management Engineering Coordinator

ARNOLD M. LEAS
Director Research and Development

G. S. LITTON
Refining Chief Engineer

CHESTER C. LOVING
Traffic Manager

ALBERT G. MAYER
Assistant Treasurer-Transfer Agent

HAROLD V. MESSICK
Coordinator Product Application

JAMES H. MOORE, JR.
Assistant Secretary-Attorney

GEORGE D. MYERS
Refining Operations Advisor

JOSEPH M. O'LOUGHLIN
Assistant Secretary-Attorney

ERSKINE A. OWENS
Manager Crude Oil Supply

WILLIAM H. POWELL
Assistant Controller

JOHN R. ROSSON
Assistant Director of Personnel

FRANK J. SARGENT
Manager Transportation Sales

JOSEPH B. SCHLICHT
Assistant Treasurer

JOHN J. SHELLY
Manager Asphalt Sales

GEORGE W. SISLER
Director Advertising-Sales Promotion

PAUL L. SMITH
Director of Personnel

JOHN E. STONE
Manager Wholesale Sales

NORMAN R. TRIMBLE
Deputy Director of Personnel

J. P. TROUT
Assistant Treasurer-Transfer Agent

JOHN P. WARD
Assistant Secretary-Attorney

ROBERT K. WARREN
Manager Economic Analysis

DON C. WELLER
Assistant Manager-Crude Oil Supply

WALTER E. WHITT
Assistant Secretary-Attorney

JOHN C. WILSON
Safety Coordinator

WILLIS H. WINTERS
Assistant Treasurer-General Credit Manager

RICHARD G. WRIGHT
Assistant Treasurer

OLIVER J. ZANDONA
Refining Technical Advisor